

II. IN THE ABSTRACT

Please delete the Abstract as presently written and replace it as rewritten on the next page:

The invention relates to a method for arranging communication between terminals ~~{MT1-MT4}~~ and an access point ~~{AP1, AP2}~~ in a communication system ~~{1}~~ applying data transmission frames ~~{FR}~~. The data frames (FR) comprise timeslots for uplink and downlink communications between the terminals ~~{MT1-MT4}~~ and the access points ~~{AP1-AP2}~~. The terminals ~~{MT1-MT4}~~ can be allocated one or more timeslots ~~{702-707, 802-807}~~ in frames. The spatial signature of at least two terminals ~~{MT1-MT4}~~ is determined, and in at least part of the frames ~~{FR}~~, at least partly simultaneous timeslots ~~{704-707, 802-804}~~ are allocated to at least two terminals ~~{MT1-MT4}~~. Measurements are taken of a signal transmitted by the terminal ~~{MT1}~~ and used to estimate the timing and frequency offsets and the properties of the communication channel. The simultaneous time slot ~~{702-707, 802-807}~~ allocation for terminals ~~{MT1-MT2}~~ is done based on measurement results.